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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|-----------------------|---------------------|------------------|
| 09/308,860 | 01/12/2001 | Malcolm Tom McKechnie | 08291/600001 | 6735 |

7590 11/19/2002

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EXAMINER

MARKOFF, ALEXANDER

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 1746 | 17 |

DATE MAILED: 11/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

24

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|------------------------------|-------------------|------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/308,860 | MCKECHNIE ET AL. | |
| | Examiner | Art Unit | |
| | Alexander Markoff | 1746 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 03 September 2002.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 24-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 24-55 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) Interview Summary (PTO-413) Paper No(s) _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 24-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes (US Patent No 5,800,605; WO 96/01285; EP A 769, 031) in view any one of Law et al (US Patent No. 5,765,761), Sun et al (US Patent No. 5,753,302) and Mitsumura et al (US Patent NO 5,865,381).

Hughes teaches that the methods and apparatuses for charging particles as claimed (tribo, frictional, discharge type) were conventional in the art. Hughes also teach the particles made of the same materials as claimed. Hughes further teaches the use of these charged particles for cleaning.

Hughes do not provide information regarding charge to mass ratio of the particles, thereby it is not clear from the reference whether or not the particles are the same as claimed.

However, the particles with the charge to mass ratio as claimed have been conventional in the art as evidenced by Sun et al, Law et al, and Mitsumura et al.

These references also show that charge to mass ratio is important and result effective parameter.

Having the combined teachings of the references it would have been obvious to an ordinary artisan at the time the invention was made to make the particles of Hughes by any conventional apparatus with the charge to mass ratio disclosed by Sun et al, Law et al, and Mitsumura et al, because such charge to mass ratio was conventional.

Moreover, it would have been obvious to an ordinary artisan at the time the invention was made to find charge to mass ratio by routine experimentation depending from the application requirements.

Responses to Arguments

6. Applicant's arguments filed 9/3/02 have been fully considered but they are not persuasive.

The applicants argue that the applied art is relevant only to the first step of the claimed process.

This is not persuasive because at least Hughes teaches the use of the charged particles for household cleaning. See at least column 1, lines 9-14 and column 2, lines 43-46. Any cleaning process with the particles would obviously require contact the particles with the material to be cleaned and removing the particles.

With respect to claims 35-55 the applicants also argue that the applied art does not teach charging particles at the point of delivery.

The applicants rely on the statement of Hughes containing in column 2, line 56.

It is noted that the referenced part of Hughes is a part of a statement (column 2, lines 52-61) that providing charge in the volume of the particles at the manufacturing stage, not on the surface of the particles (as done by other conventional methods, such as tribo, frictional or discharge) provide advantages, such as longer charge retaining and better sprayability.

It is clear from the statement that the use of a conventional frictional or discharge charging (claimed by the applicants) would be benefited or would even require charging immediately prior to use.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 703-308-7545. The examiner can normally be reached on Monday - Friday 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P. Gulakowski can be reached on 703-308-4333.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Alexander Markoff
Primary Examiner
Art Unit 1746

am
November 18, 2002



ALEXANDER MARKOFF
PRIMARY EXAMINER